

Choosing the Garage

The Atlas Portland Cement Company

Members of the Portland Cement Association

30 Broad St., New York Corn Exchange Bank Bldg., Chicago

Boston Philadelphia Minneapolis St. Louis Des Moines Dayton

FRANKLIN
INSTITUTE
LIBRARY



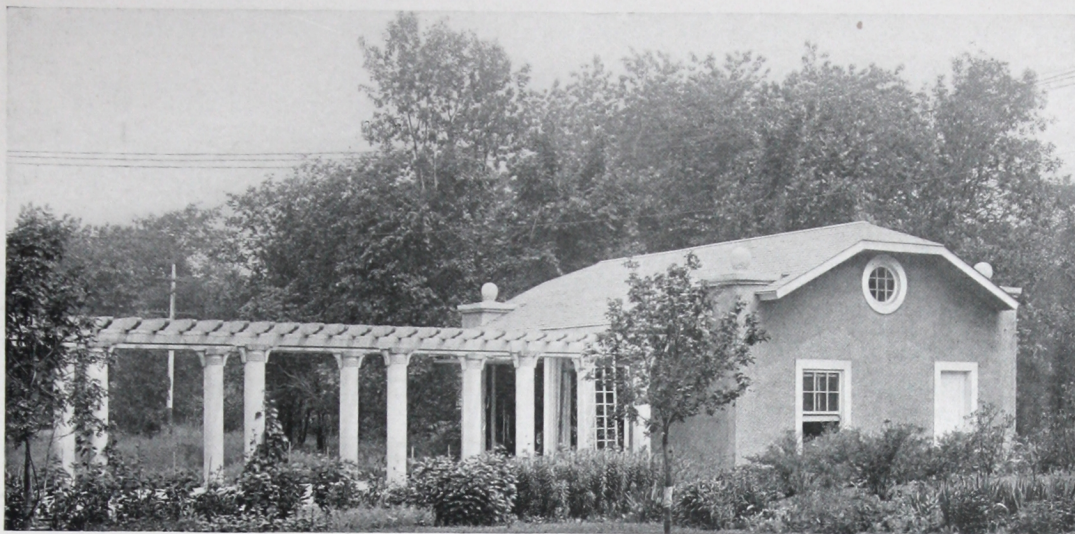
Atlas-White Stucco Home and Garage, London, Canada.

McBride & Gilbert, Architects.



Some interesting fireproof garages.

10 88-04020 712



Garage with Pergola

Oak Park, Ill.

Your Own Garage

Convenience in using your car and the saving of rental—these are the obvious advantages of having your own garage. And because the contents of the garage are so valuable, the most important requirement is that it be absolutely safe against fire.

Besides being fireproof, the garage should be reasonably low in the first cost, attractive in appearance, permanent, easily cleaned, and should require little or no upkeep and repair.

Many attractive ways to build

There are a number of materials to choose from in building the garage—wood, steel, stone, brick, stucco or concrete.

Any of these materials will make an attractive structure, but a garage of concrete or stucco best fulfills *all* of the requirements we have mentioned above.

Wood construction

The advantage of wood is its cheapness plus the fact that everybody is familiar with its use. But wood, without a fireproof coating as protection, is dangerous for garage construction. Oil and

10 88-B7230 TCF

gasoline take fire very readily, and wood—as everyone knows—is fire's favorite fuel.

The cost of upkeep of a wood garage is far greater than that of a fireproof structure. Insurance is higher and frequent painting and repairs are necessary. For these reasons wood is no longer used extensively.

Steel construction

A sheet-steel or sheet-iron garage is fireproof, but it requires frequent painting, in order to look well and to prevent rust. It naturally lacks the beauty of other types even in the most expensive designs.

Masonry construction

Stone and brick make attractive, durable garages. But, as the first cost is high, they are seldom used for the garage except to harmonize with a residence of similar material. For ornamental effects, however, rubble stone and glazed brick are very desirable. Either makes an admirable base-course, for instance, for a stucco garage, especially if set in a mortar of white Portland cement.

Stucco construction

Stucco is one of the oldest of building materials. It is low in first cost, fireproof, beautiful in appearance, and lends itself very attractively to warm, mellow tones, artistic finishes and ornamentation. *It requires no painting or upkeep.*

Concrete construction



Solid Concrete Garage with Concrete Roof

Concrete possesses all the requirements of the ideal garage material.

Whether used in the form of blocks or in mass with proper reinforcement, it gives great strength and durability, absolute fire protection, and at the same time it is remarkably easy to build. The first cost is somewhat higher than stucco. It requires no upkeep.

After the decision is made

Your architect and contractor are familiar with all the various types of construction and their advice in the choice of material, and particularly the architect's advice in the matter of design, finish and ornamentation will be invaluable.

After it is decided what material to use, the various questions of construction detail—size, frame, floor, roof, etc., etc., must be answered by considering your own particular conditions and requirements in connection with the facts that follow.

Choice of size

For housing a single car a size of 13 x 24 feet is frequently used and gives a clear space of 3 feet around the largest car.

It is often a good plan, however, to make the garage large enough to accommodate two cars even though you have no immediate need for the additional space. The standard two car garage is 23 x 24 feet interior dimension; and it is not much more expensive to build than the single car size. It provides a convenience for your visitor's car or gives you space that may be profitably used for garden tools or rented, if desired.

Selection of the frame

The principal difference in garages is in the frame or wall construction. The wall of the fireproof garage in reality determines the type. There are six common constructions possible—and each has certain advantages of economy, durability, etc., to recommend it.

- (1) Pipe frame with metal lath and Portland cement stucco.
- (2) Angle iron frame with metal lath and Portland cement stucco.
- (3) Wood stud framing and Portland cement stucco.
- (4) Hollow tile with Portland cement stucco.
- (5) Concrete block with or without stucco surface treatment.
- (6) Mass or reinforced concrete garage.

We shall consider these six types carefully in the following pages, illustrating each and describing the features of construction in detail.

Stucco Garage—with Pipe Frame

In this type of garage the walls and roof are built on a frame of ordinary pipe and pipe connections. The framework sets in a foundation of concrete. Metal lath and stucco are applied to the frame to make up the walls and roof. The cement roof is finished with slate, shingles, asbestos or tile.

Its ease of construction

The advantage of the pipe frame is that it can be easily put together. A local plumber or gas fitter will make the assembly of the frame. (The drawing on the opposite page gives him the information necessary.) The frame is delivered all ready to put up; the roof truss in one piece; the side walls in not more than two or three.

Inexpensive and serviceable

This makes the pipe frame garage very easy to build. It is nevertheless a thoroughly serviceable type—strong and fireproof. And it allows of variation and decoration to meet all practical requirements and makes an artistic structure.

Some interesting details

On the opposite page are illustrated important construction details. These will be of assistance to you in the actual building. Such points as are not covered here will be found fully described on page 18.

Frame construction

This consists primarily of 2½-inch pipe uprights set in the concrete base with cross-pieces of 1½-inch pipe. Between the uprights are ¾-inch flat irons running from top to bottom and spaced 16 inches on centers. The roof truss is made of 2½-inch pipe with similar ¾-inch intermediate pieces. The connections are ordinary pipe X's or T's.

Wall detail

There are two possible ways of building up the stucco wall. The first is with wire lath, which is wired to the flats and receives the stucco coat as illustrated on page 7. A more rigid and substantial structure is made by using a ribbed metal lath shown on page 11.

The cement roof

A fireproof roof is very easy to construct on the pipe frame garage.

A roof truss of pipe is assembled as in the detail opposite. Metal lath is then wired to the

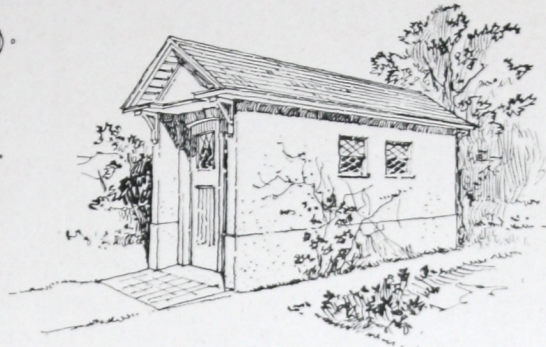
flat irons, as in the wall construction, and the first or scratch coat of stucco is put on. Before applying the second coat, beveled wooden strips—2 inch by 1 inch—are set parallel to the eaves and spaced about 4 inches to 5½ inches apart. Then fill flush to the top with mortar consisting of one part Atlas Portland Cement and 2½ parts of sand. Finally, shingles (or slate or tile) are nailed to the wood strips.

Doors and windows

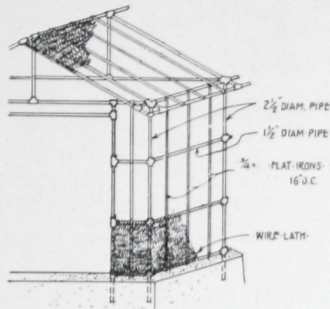
Each window is provided for by 1½-inch channel iron frame of proper dimensions, which is tap bolted to the pipe frame. The window frame itself is set in the channel frame. The channel is put in place before the application of the stucco, and acts as a plaster ground when the outside stucco and inside mortar are applied to the wire lath. To give a more finished appearance to the opening, wood trim is added. The sash may be double-hung or pivoted.

The door case is inserted in a similar manner.

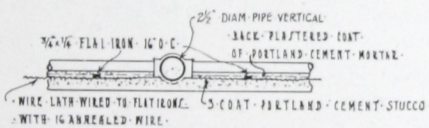
· PIPE · FRAME · GARAGE ·
· WITH ·
· PORTLAND · CEMENT · STUCCO ·
· AND ·
CEMENT ROOF
THE · ATLAS · PORTLAND · CEMENT · CO ·
· NEW · YORK · · CHICAGO ·



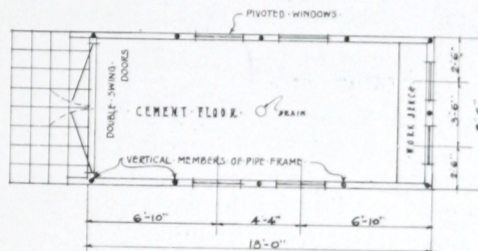
· PERSPECTIVE · VIEW ·



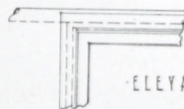
DETAIL OF CONSTRUCT-
ION OF PIPE FRAME



· DETAIL OF WALL ·



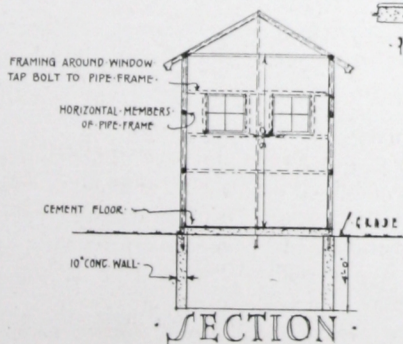
· PLAN ·



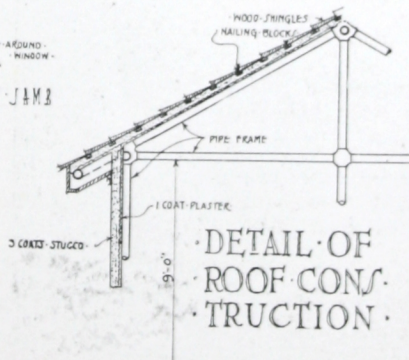
· ELEVATION ·



· PLAN OF WINDOW JAMB ·



· SECTION ·



· DETAIL OF
ROOF CONS-
TRUCTION ·

Wood-Stud Frame Stucco Garage

This type of garage has a rigid frame of 2-inch by 4-inch wood studs spaced from 12 to 14 inches on centers and properly braced. Metal lath and stucco are applied on the exterior and a cement mortar on metal lath for the interior finish, thus making the building for all practical purposes fireproof.

The foundation and floor are of concrete; the roof is usually wood frame finished with slate, tile or shingle.

Often the most economical

This is undoubtedly the most common and familiar type of stucco construction. In many localities—where pipe frame or angle iron is not available—it is also the most economical. The drawing on the opposite page shows a layout and details that admit of ready construction with materials that are easily obtainable.

Two common constructions

There are two general types of wood-stud frame garage, depending on the method of applying the metal lath for the exterior stucco. One uses ribbed metal lath without furring or sheathing (termed "solid stucco"); the other uses wire lath and furring on wood sheathing.

1—With ribbed metal lath

In this construction ribbed metal lath is nailed directly to the wood studs. The lath is placed with the ribs running horizontally and is given three coats of stucco on the outside and a single coat of cement mortar on the inside. This provides what is in reality a concrete wall approximately $1\frac{1}{2}$ inches thick, thoroughly reinforced by the metal lath—a very rigid construction.

2—With wire lath and sheathing

The second method (which is more commonly used) is to place 1-inch sheathing on the wood studs, cover with a waterproofing tar felt paper, and upon this surface apply furring strips to which are secured the common expanded metal lath or wire fabric. With either method wire lath is used for the inside wall, coated with a cement mortar.

Other important details

The plate on the opposite page shows the principal details necessary for the successful construction of the wood-stud garage. Further descriptive information also will be found on page 18.

Wood Roof

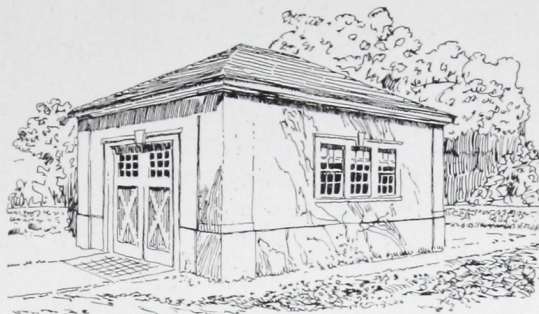
A wood roof is the simplest construction for a wood-stud garage. The rafters are 2 inches by 6 inches and set directly above the studs, to which they are secured through a 4-inch by 4-inch plate. Wire lath and cement plaster are added to the lower surface of the rafters, giving fire protection and a uniform interior appearance to the garage.

One-inch sheathing and wood shingles are nailed to the upper surface and make up the roofing proper.

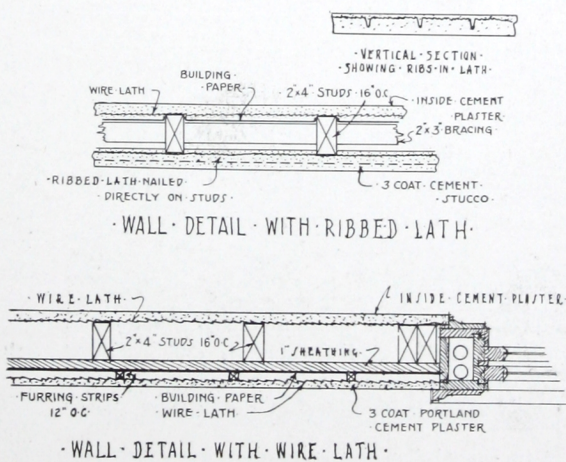
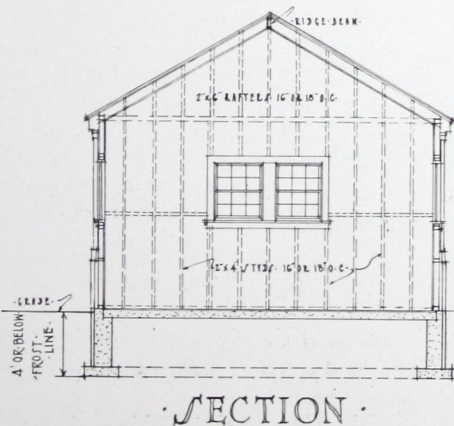
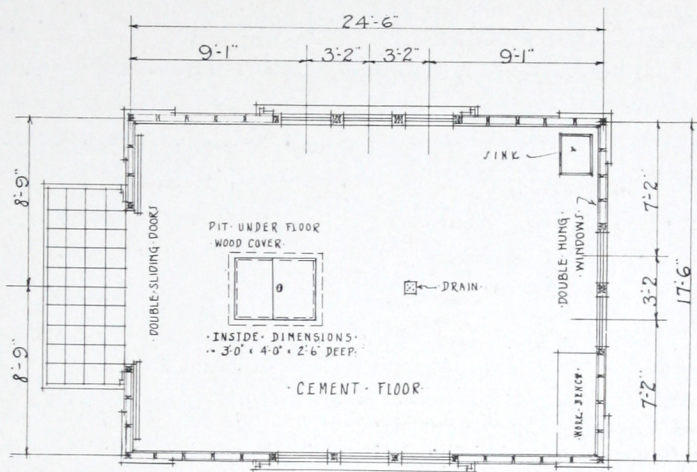
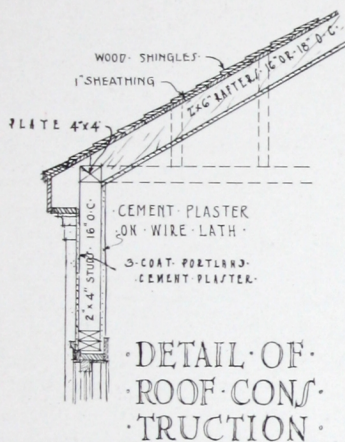
Doors and windows

The window and door casings are placed in the frame openings provided for them; the metal lath and the stucco are then applied, completing the operation.

WOOD STUD GARAGE
WITH
ATLAS WHITE STUCCO
AND
WOOD ROOF
THE ATLAS PORTLAND CEMENT CO.
NEW YORK CHICAGO



PERSPECTIVE VIEW



Hollow Tile Stucco Garage

In this type of garage the walls are structural hollow tile faced with Portland cement stucco and plastered on the inside with a Portland cement mortar. Foundation and floor are concrete and the roof may be wood, cement or concrete.

Strong and economical

In localities where hollow tile is available the cost compares so favorably with other types that it is one of the most commonly built garages. Tile furnishes an excellent base on which to apply stucco.

A two-story hollow-tile garage

The opposite page illustrates in detail the construction of a typical two-story hollow-tile garage, showing stairways, partition and provision for heating. The drawing provides for a wood roof, but a cement mortar or concrete roof can be used without other important change, and affords absolute protection against fire originating either from without or within.

Wall detail

The hollow tile is laid with the cells running vertically. They are plastered with Portland cement mortar on the inside and are given three coats of stucco on the outside.

In a two-story building it is advisable to fill the corner tiles with concrete and reinforce the piers thus formed with steel bars, as shown in the drawing.



A two-story hollow tile garage with a base-course of ornamental rubble stone.

Hollow tile for the upper floor

Hollow tile set in reinforced concrete make an excellent construction for the upper floor—light, strong and fireproof. Steel reinforcing rods are placed between the tile as shown in the illustration. The lower surface of the hollow tile and concrete is plastered with a cement mortar, providing a smooth ceiling.

Heating

Heating is either by steam or hot water. The drawing shows a complete steam-heating equipment, consisting of boiler, coal-pocket, necessary piping, and two radiators.

The radiators are set above the windows to allow the drainage water to flow back into the boiler.

Partition

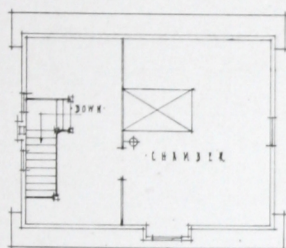
A fireproof partition is provided to shut off the boiler from the rest of the garage as a precaution against fire.

The partition has a channel iron frame, to which wire lath and Portland cement mortar are applied.

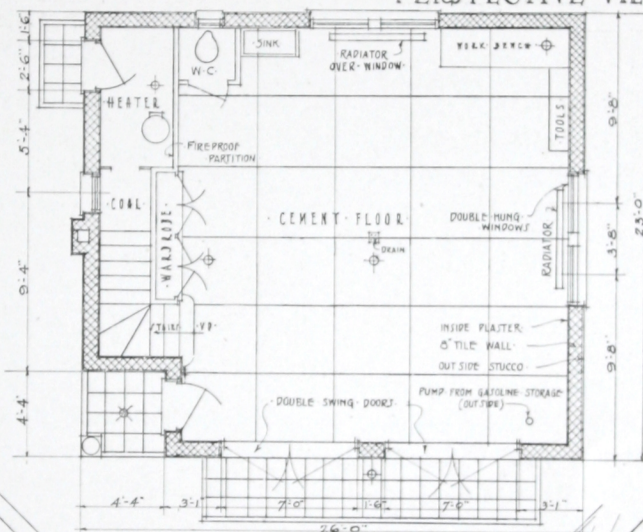
HOLLOW TILE GARAGE
WITH
ATLAS WHITE STUCCO
AND
WOOD ROOF
THE ATLAS PORTLAND CEMENT CO.
NEW YORK CHICAGO



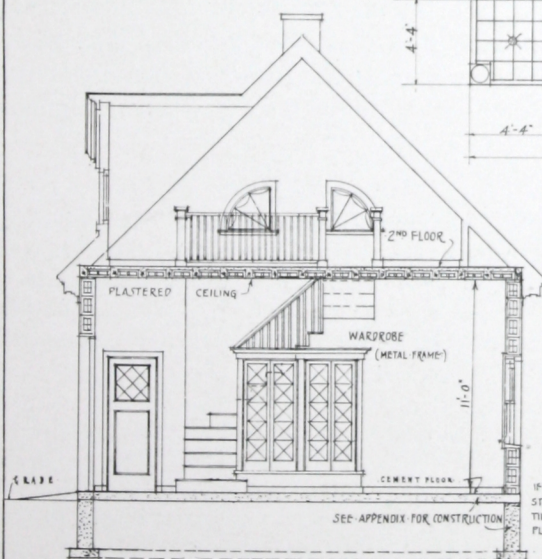
PERSPECTIVE VIEW



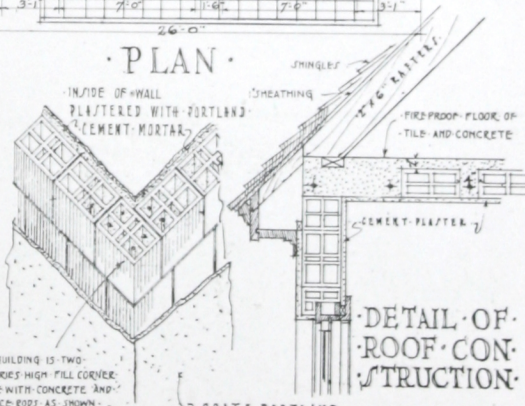
PLAN OF SECOND FLOOR



PLAN



SECTION



DETAIL OF CORNER OF
8" HOLLOW TILE WALL

DETAIL OF
ROOF CON-
STRUCTION

Concrete Block Garage

This garage is very similar to the hollow tile type. It is made with hollow blocks of concrete set in a Portland cement mortar. The roof may be wood, cement or concrete. There is a wide field for choice, also, in the blocks themselves. They may be rough unfinished, or with a rock-cut face, or smooth-faced with Atlas-White.

Important advantages

The concrete block garage is a simple garage to construct and is very economical as well if there is a concrete block manufacturer in the immediate locality. It allows wide possibility of artistic treatment.

Two possible exteriors

Concrete blocks may be used with or without stucco surface treatment. The facing of the blocks may be made in any variety of textures and colors, and this permits many pleasing exterior effects without the use of stucco.

Where the blocks are stuccoed, the manner of application of the stucco is identical with that in the hollow tile garage.

Using Atlas-White blocks

The garage illustrated on the following page shows the ornamental possibilities of Atlas-White Blocks used in connection with rock-cut faced blocks. The main portions of the walls are the ordinary rock-cut grey block; the trim and corner pilasters are smooth and have been faced in the making with a mortar of Atlas-White Cement.



A concrete block garage with stucco exterior and a wood roof

Walls

The interior surface of the blocks is plastered with a cement mortar, as in the hollow tile type.

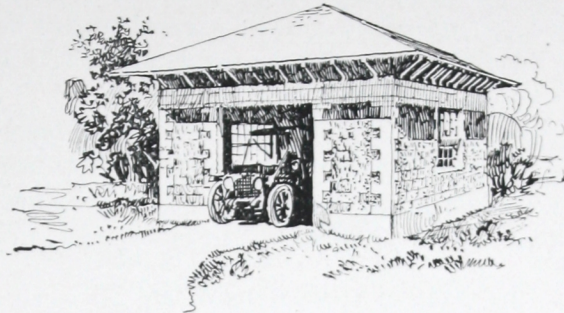
In both the hollow tile and concrete block types of garage the window frames and door cases are built into the walls when the walls are erected.

Roof

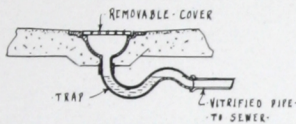
The illustration on the opposite page shows a wood roof. The cornice is of deep projection with closely-spaced open brackets supporting it.

The rafters tie into the concrete block wall through a 4-inch by 6-inch wood plate which is anchored to the wall with small bolts or heavy spikes. The rafters are nailed to this plate.

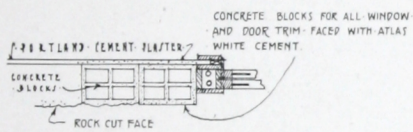
CONCRETE GARAGE
WITH
ATLAS WHITE BLOCKS
AND
WOOD ROOF
THE ATLAS PORTLAND CEMENT CO.
NEW YORK CHICAGO



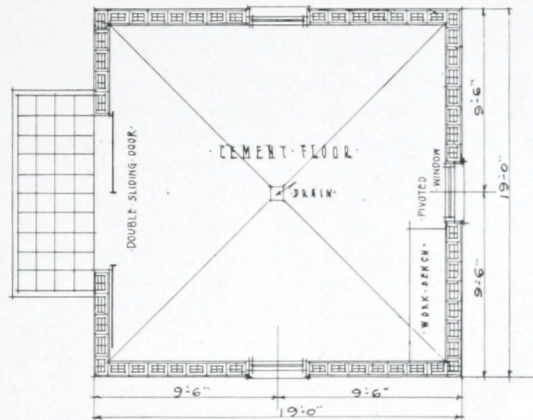
PERSPECTIVE VIEW



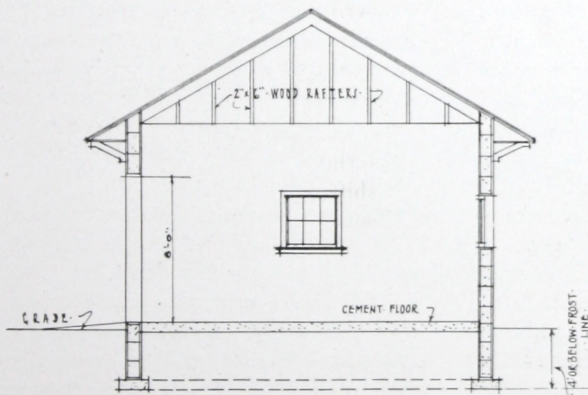
FLOOR DRAIN AND TRAP



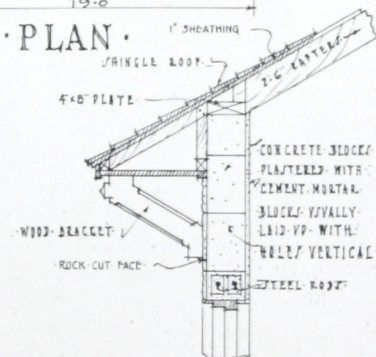
DETAIL OF WINDOW JAMB



PLAN



SECTION



DETAIL OF
ROOF CON-
STRUCTION

Actual Construction of the Garage

In the preceding pages we have outlined specific advantages and features of construction for the various types of garages. We shall now consider the actual process of building—with each step in its proper sequence. This summary cannot of course completely cover each type, but by reading the pages that follow, in connection with the description and drawings of the particular type you decide to build, you should derive a working knowledge of the entire procedure.

Since concrete enters in one or more places into the construction of every type of fireproof garage let us first consider how it is most successfully prepared.

Selecting materials

Concrete is a mixture of Portland cement, sand (fine aggregate) and stone (coarse aggregate). The stone distinguishes concrete from cement mortar—which is made of Portland cement, lime and sand only.

The selection of materials for making Portland cement mortars and concretes is an exceedingly important matter and should always be given very careful consideration. Dirty sand is the cause of most concrete failures. The presence of foreign material in sand may be easily detected by shaking some of the sand in a bottle of water, or rubbing some of the moist sand between the hands; a dirty or muddy appearance shows the presence of loam. In the bottle test if more than 5 per cent. of silt settles on the top of the sand the sand should be washed. Sand suitable for the fine aggregate in concrete work should be graded from fine to material passing a $\frac{1}{4}$ -inch mesh screen with the coarse grains predominating.

The coarse aggregate may be stone, gravel, slag or cinders. Cinder concrete, however, is porous and not suitable for use where strength is required. Crushed stone or gravel should be

graded in size from $\frac{1}{4}$ -inch to 1-inch or $1\frac{1}{2}$ inches for mass concrete work. The same precautions as govern the selection of the fine aggregate should be used. It should be clean, hard and present a sharp fracture.

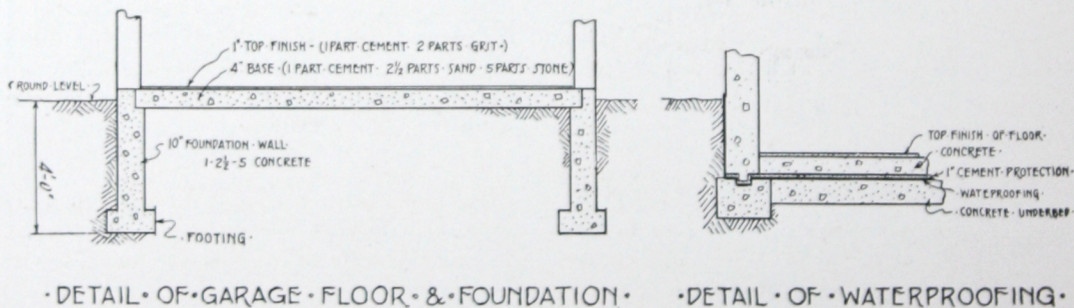
Bank-run gravel should be separated into sand (fine aggregate) and stone (coarse aggregate) and combined in the proper proportions to make concrete of the proportions specified.

Water used in mixing should be clean, free from acids, alkalies or oils.

Mixing

The materials entering into any concrete mix should be very carefully measured to give the exact proportion required for the work. A bottomless measuring box of 1 cubic foot for measuring the sand and stone will be found very convenient for this purpose. A bag of cement contains approximately 1 cubic foot. Where much work is to be done a concrete mixer will be found economical, but hand mixing properly done is just as satisfactory.

Spread the sand in a thin layer on the mixing board. Cover the sand with the cement; spread out in a thin layer; mix thoroughly by turning it



at least three times dry. Then add water and mix thoroughly. Spread the mortar out in a thin layer and dump the stone on it. Spread the stone out and wet it lightly; mix the mortar and stone at least three times. Uniform, dense concrete depends upon thorough mixing with enough water to avoid the necessity of excessive tamping in the forms. As soon as the concrete is mixed it should be removed immediately in wheelbarrows and placed in the forms before it has begun to set.

Foundation

Local conditions govern the size and depth of the foundation walls. Under ordinary conditions the foundation need not be more than 12 inches wide; 3 feet deep will carry it below frost. The walls should be five inches above ground level to provide for a concrete floor of this thickness. The concrete for the foundation could be made in the proportion of one part Portland cement, two and one-half parts sand, five parts screened gravel or crushed rock. If the soil and drainage conditions are not favorable, a wider footing may be given to the foundation wall as shown on page 18. Ground water will have a tendency to rise to the surface, and where the garage is to be built in the vicinity of ground water a waterproofing layer should be incorporated in the wall and floor, as shown on page 18.

Floor

The concrete floor 5 inches thick rests directly on the ground. The ground should be scraped and well rolled or tamped to secure a good foundation. The floor drain, forms for the floor pit, water pipes and pipes from the gasoline storage tank should all be placed before the concrete for the floor is poured. The floor may be constructed in one course, using a 1 : 2 : 4 mix throughout, or a more usual method is to use a 4-inch base with a 1 : 2 : 5 concrete, surfacing immediately after placing the base with a 1-inch coat of 1 : 2 mortar.

Floor pit

A floor pit about 4 feet long by 3 feet wide is a great convenience. It should be sunk about 2 feet six inches and have concrete walls 8 inches thick. A substantial wood cover must be provided. The cover will set in a 3 by 3-inch pocket. A pit of this construction is detailed on page 17.

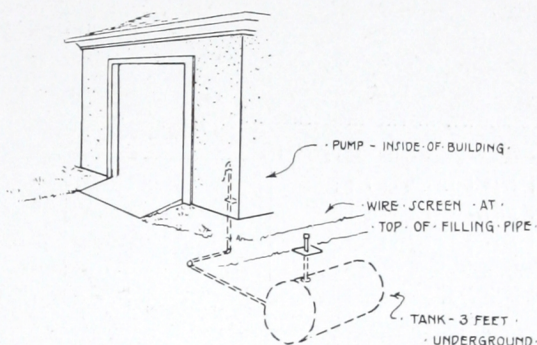
Drain

The floor of the garage is laid with a slight slope to drain in the center. If the cement floor finish is carried up against the wall to form a base 8 to 12 inches high, the floor may be readily washed clean with the hose, and there are no corners at the junction of the wall and floor to accumulate oil, dirt or refuse.

The drain itself (as illustrated on page 15) consists of an iron bell with perforated cover set in the concrete. A pipe trap is provided and the waste is led through a vitrified tile pipe to the cesspool or sewer.

Gasoline tank

A gasoline tank of several barrels capacity should be buried out-of-doors about 3 feet underground, with a pump for drawing only as much gasoline as is wanted at a time.



The pump is preferably located just inside the entrance door—as shown in the illustration. There should be a wire screen at the top of the filling pipe to prevent clogging the supply.

Approach to the garage

The approach to the garage should have a gentle slope. It is made of Portland cement, scored off to give a paving block effect (see page 17). If the roof is of red tile an attractive touch can be given to the garage by making the approach also of red—introducing some red mineral pigment into the cement mix.

Walls

The actual construction of the walls depends of course on the type of frame used. The manner of tying the walls to the concrete foundation is now described.

This is done in the pipe frame garage by having the 2½-inch uprights project about 12 inches into the foundation walls. A large diameter pipe—preferably 4-inch—is placed in the form when the lower walls are poured, and the pipe itself is afterwards grouted in.

The iron frame sets above the foundation walls and is kept in place by brace plates that set in the concrete floor.

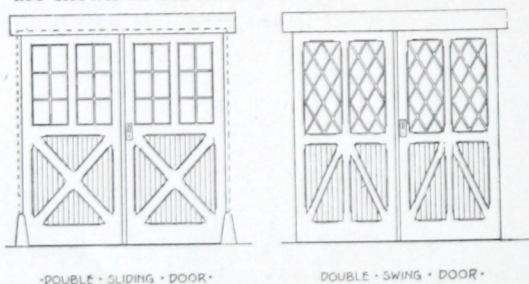
The wood-stud walls may be secured to the foundation through a wood sill which is bolted to the foundation by ¾-inch bolts set in the concrete at the time it is poured.

In the case of the hollow block types of garage the mortar in which the blocks are set acts as a bond to the foundation.

In the concrete garage the walls are integral with the foundation, as already described.

Doors and windows

The doors may be either swinging or sliding, depending on the style and type of garage selected. Satisfactory constructions of each kind are shown in the illustration.



The window sash is either double-hung or pivoted. In reinforced concrete construction heavy metal sash with metal frame and small panes may be used. This gives better burglary and fire protection than the average window.

Roof

Four general types of roof have been described in the preceding pages:

- (1) The metal frame roof with wire lath, cement mortar and a finish of slate, tile or shingle.
- (2) The cement mortar roof with ribbed metal lath.
- (3) The ordinary wood roof—built with wood rafters and slate, tile or shingles.
- (4) The reinforced concrete roof.

The first two types are best suited to a metal

frame garage. Where a peak roof is to be used the former is preferable, while the cement finish roof is well adapted to a curbed construction. The choice will depend largely on the style of roof used in the residence as it is a good plan to match existing architecture where possible.

A wood roof may be used for any type of garage. It is easy to build and if plastered inside with a cement mortar gives fair fire protection.

The concrete roof may be used for a hollow tile, concrete block or a reinforced concrete garage. It is usually made flat, because it is difficult to handle concrete with steep inclines.

Applying the stucco

The application of the stucco coat is the last step in the construction of the garage. The manner of mixing and applying stucco must follow some important general rules, and does not depend to any appreciable extent on the style of frame used.

Good stucco is beautiful, protective and lasting—but to secure these advantages to the fullest extent it must be applied correctly. If poorly built it will crack; therefore insist on the best workmanship and observe that the recommendations below are followed closely:

First coat

Stucco should be three coat work. The first coat should be in the proportion of one part Atlas Portland Cement, three parts clean well-graded sand, 10 per cent. of the weight of the cement of hydrated lime. One-half pound of hair per 100 pounds of cement may be used if the stucco is to be placed on metal lath. This coat should be thoroughly scratched before it gets its initial set in order to secure a bond for the second coat.

Second coat

The second, or ground coat, should be placed as soon after the first coat has set as possible, and before it has dried out, and should be mixed in the proportion of one part Atlas Portland cement, two and one-half parts clean well-graded sand and 10 per cent. of the weight of the cement of hydrated lime. This coat is applied for the purpose of bringing the surface to true lines, and the corners should be thoroughly established. This coat should be scratched before it has set in order to secure a bond for the finish coat.



Spatter Dash Stucco finish



Floated Stucco finish



Stippled Stucco finish



Pebble Dash Stucco finish

Third Coat

The third coat, or finish coat, may be given any desired color or texture. If pure white is desired Atlas-White Portland Cement and white sand will secure this effect.

The soft mellow tones, such as creams, buffs, and tones just off the white, are obtained by incorporating color aggregates—colored sand, colored gravel, colored marble dust and screenings—with Atlas-White Cement.

Mineral pigments are also used for this purpose.

Color tones in Stucco

Many beautiful color effects can be obtained when color aggregates are used. By using various combinations of different colors of aggregates and by manipulation of the stucco, it is possible to secure a rich variegated or blended effect in place of a monotone or uniform color. This is the newest thing in stucco and is decidedly artistic and distinctive.

When mineral pigment is used instead of color aggregates, the color is uniform. The pigment may be Prussian blue, ultra-marine blue, yellow ochre, burnt amber, Venetian red, Chattanooga iron ore and red iron ore. These are added in proportions varying from $\frac{1}{2}$ pound to 4 pounds per 100 pounds of cement—depending on the intensity of color desired. Care must

be used to select pigments which are specially manufactured for coloring Portland Cement.

Stucco finishes

Stucco admits of several finishes which are easy to apply and add beauty to the design. These are of various degrees of roughness, ranging from the smooth trowel finish to the rough cast, spatterdash or pebble dash finish.

A rough finish is usually preferred because it does not show the fine checks and hair cracks that sometimes come through a smooth finish.

Ornamentation

Elaborate architectural treatment may be secured in the stucco garage by the introduction of panels or borders in tile or mosaic.

Forms of wood of the required outline are wired to the lath before applying the stucco. The stucco work is finished and after the wall has hardened the inlaid wooden blocks are carefully removed and the panels filled by grouting in the tile or other ornament.

Similar effects are had in the reinforced concrete garage by incorporating wooden forms for the ornamental work into the main wall forms before pouring the concrete.

In the concrete block garage without stucco exterior there is equal opportunity for ornamental effect. This has already been described (page 14).

There are a great many conveniences in the garage which have been shown in the various drawings but have not been elaborated on in the descriptions.

The properly equipped garage should have a sink with hot and cold water, a work-bench, acetylene lights (if electricity is not available), a metal locker, and—if the garage is to be used in the winter—adequate heating equipment.

These details add to the original investment but they usually pay for themselves in greater convenience and better service from the automobile.



Showing the possibilities of large garage construction

Atlas Portland Cement

The selection of the cement is one of the most important questions that arise in constructing the fireproof garage. Whichever type you build, Portland cement is required in considerable measure—for the foundation and the floor, for the stucco coating, and for the interior plastering.

Atlas is the most-used Portland cement because of its uniform high quality. It makes for permanent, reliable construction.

Atlas Portland Cement should be used for the first two stucco coats, in proportions as previously described. It may also be used for the final coat and gives an attractive gray tone.

Atlas should be employed for all the concrete mixtures referred to in the preceding pages.

Atlas-White Portland Cement

Atlas-White is a true Portland cement of the same high quality as Atlas Portland Cement, but is pure white, and is non-staining.

By mixing pigments or colored aggregates with the Atlas-White Portland Cement for the final coating of the garage, many charming mellow tones are possible, adding greatly to the distinctiveness and individuality of the finished building. Atlas-White gives the true color value of the aggregates or pigments used, making possible the soft creams and buff effects that are not obtainable with gray Portland cement. Atlas-White should be used in the final stucco coat whenever a pure white finish or a soft tint is desired.

Other Books on request

The following books are also available for those interested:

“Information for Homebuilders”

“Concrete on the Farm”

“Building a Bungalow”

“New Homes for Old”

“Industrial Garages”

The photographs in this book are by courtesy of the following architects and contractors: C. T. Shafer; Earl Harvey; Davis, McGrath & Kiessling; McBride & Gilbert; Montrose W. Morris; A. Hull; Frank Wright; Samuel Gibson and J. C. Udall



"The Standard by which all other makes are measured."

Further Information

Your architect will give you further information, and your contractor will construct any of the types of garage described herein.

We shall be glad to send you additional data on any point which is not clear.



Atlas-White Stucco Garage, Englewood, N. J.

Davis, McGrath & Kiessling, Architects.